

## PATENT

## IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

Please replace paragraph no. [1041] with the following amended paragraph:

[1041] If it is determined that there are more mobile stations to process in the sequence of scheduled mobile stations (a "YES" outcome at box 302), then the processing moves to a next mobile station in the sequence of scheduled mobile stations, at box 304, and repeats the process shown in box 300. Once the grant channel is assigned, that grant channel is removed from the list of all available grant channels. Otherwise, if it is determined that there are no more mobile stations to process in the sequence of scheduled mobile stations (a "NO" outcome at box 302), then a determination is made as to whether every grant channel has been assigned a mobile station, at box 306. A "YES" outcome of this determination will indicate that there is no GCH outage in scheduling the grant channels, while a "NO" outcome will indicate that there is a GCH outage and that a new assignment should be attempted. Thus, if a GCH outage is detected, at box 306, ~~the sequence of~~ the sequence of scheduled mobile stations and/or the list of monitored grant channels for each mobile station is rearranged, at box 308. In one embodiment, the sequence of scheduled mobile stations and/or monitored grant channels is rearranged in such a way that the sequence of mobile stations is rotated as shown in FIG. 2B. For example, in FIG. 2B, sequence R1 is a rotated version of sequence R0. In another embodiment, the sequence of the list of scheduled mobile stations and/or monitored grant channels is rearranged in any manner such that the new sequence is different from the previous sequences.

Please replace paragraph no. [1043] with the following amended paragraph:

[1043] FIG. 4 and FIG. 5 illustrate simulation results of exemplary grant channel assignment performance expressed in terms of a relative reverse link efficiency for a different number of grant channels (*I*) monitored by each mobile station. Relative reverse link efficiency of 1.0 would be obtained if GCH outage never occurred. Each figure includes seven curves

## PATENT

representing different total number of available grant channels ( $k$ ). FIG. 4 illustrates the reverse link efficiency assuming the number of mobile stations scheduled per time slot to be uniformly distributed over  $\{1, 2, \dots, k\}$ , i.e.,  $P(r) = 1/k$ ,  $r = 1, \dots, k$ . FIG. 5 illustrates the reverse link efficiency assuming the number of mobile stations scheduled per time slot to be distributed according to the following probability distribution:  $P(r=0), P(r=1), \dots, P(r=8) = \{0.00860689, 0.0458367, 0.172538, 0.303443, 0.269816, 0.138511, 0.0490392, 0.0104083, 0.00180144\}$ .

Please replace paragraph no. [1046] with the following amended paragraph:

[1046] Based on the above results of the grant channel assignments, the following assumptions would ensure adequate performance of the cdma2000 reverse link. It is assumed that the mobile station has the capability to monitor at least two individual grant channels simultaneously. It is also assumed that the base station has a capability to signal GCH assignment parameters to the mobile station in Layer 3 (L3) messages, such as enhanced channel assignment messages (ECAM) and universal handoff direction messages (UHDH). The cdma2000 reverse link is described in the document entitled "cdma2000 Reverse Link Proposal Rev. D", document no. C30-20030217-011, which was proposed to a standards setting committee of 3GPP2 on February 17, 2003.

Please replace paragraph no. [1064] with the following amended paragraph:

[1064] For the uniform distribution  $P(r) = 1/k$ ,  $r = 1, \dots, k$ , the assignment of the above-listed grant channels to the mobile stations is shown to be substantially optimal because  $c(n, k)$  is the same for any assignment such that of the ten a-numbers, eight have different a-numbers and two have additional different a-numbers taken from those eight a-numbers. For any assignment with less than eight different a-numbers or with the different eight a-numbers, but with identical two additional a-numbers,  $c(n, k)$  is less than  $c(n, k)$  computed from Equation (8).